

REMARKS

In the subject office action, all of the claims of the application have been rejected over fifteen newly cited references. This action has been made final, even though the claims are directed to the same subject matter as the original claims. Because of the new references cited in support of this rejection, it is urged that the final rejection in the present case was premature, pursuant to MPEP 706.07(a), which states that a final rejection in the second action is inappropriate when "the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims, nor based on information submitted in an information disclosure statement."

Applicant should have a fair opportunity to respond to the large number of additional references cited prior to filing an appeal in this case. It is therefore urged that the final action be withdrawn.

In the event that the final action is not withdrawn, Applicant requests, without prejudice, that the present response be deemed a Request for Continued Examination and that the appropriate charges be assessed against Applicant's attorney's deposit account. A Request for Continued Examination is enclosed in the event that this occurs.

With respect to formalities, the Examiner has objected to the form of the specification, in that the application, as filed, did not include appropriate titles. A substitute specification is submitted herewith, which is believed to comply with the Patent Office regulations. It is requested that the substitute specification be accepted. Also, a certified copy of the foreign application on which priority is based will be filed as soon as it is received. A cross reference has been added to the specification.

In the office action, the Examiner pointed out that references discussed in the Background of the Invention are not considered. Accordingly, an information disclosure statement specifically identifying Dutch Patent No. 1009091 (discussed in the application) and two other patents is enclosed, along with copies of these references. It is urged that these references be considered. Dutch Patent No. 1009091 is believed to be perhaps the most pertinent patent, but does not disclose the subject invention for the reasons set forth in the Background section of the application.

As pointed out in the application, there are plant bunching machines wherein rollers transmit plant stems to an enlarging flexible loop that resiliently holds the plant stems. As pointed out in the application, the problem with devices of the type shown in Dutch Patent No. 1009091 is that it is difficult and dangerous to tie the plants together without separating the plants from the rotating rollers. On the other hand, if the rollers are withdrawn, the plants tend to fall out of the flexible band. The present invention is designed to overcome these problems by tensioning the band on a discharge side of the rollers between a pair of fingers of a gripper assembly, so that the fingers can close the loop when the bunch is complete, thus making it possible to move the bunch of flowers away from the rotating rollers and tie the flowers together before releasing the flowers from the flexible belt.

All of the claims of the present application recite the mechanical fingers of the present invention that engage the flexible belt under tension and open and close the belt on the discharge side of the supply mechanism to receive and hold in a bunch plant stems received from the supply mechanism. None of the patents of record in this case, alone or in combination, disclose or suggest this invention. Accordingly, it is believed that all of the claims of the application are allowable.

Considering the claim amendments, claims 1, 12, 13 15, 16, and 18 have been amended in order to correct a typographical error in claim 12 and to clarify the present invention claimed.

Claims 1, 13, 15, and 16 have been amended to recite that the stems are received laterally in the receiving mechanism. Claim 1 also has been amended to specifically recite that the mechanical fingers are positioned to grip the stems on a discharge side of the rollers. The claim already specifies that the fingers function to open the band for receipt of plant stems and close the band to hold the band around the plant stems when the bunch is complete. It is significant to note that the flexible band holds the stems, and the fingers just open and close the band. Direct engagement with a rigid clamping member could damage the fragile plant stems.

Claim 15 has been amended to specify that the fingers and flexible band are positioned on a discharge side of the supply mechanism. Claim 16 has been amended to specify more specifically that the plant stems are held together in a bunch within the flexible band until such time that the bunch can be tied together.

Claim 18 has been amended to indicate that the fingers are positioned on a discharge side of the rollers.

By referring to the fingers as being on the discharge sides of the rollers, Applicant intends to mean that the tips of the fingers that open and close are positioned, such that when the tips of the fingers are separated, plant stems can be received in the flexible band, whereas when the tips of the fingers are closed, the bunch is encircled and held on the discharge side of the rollers. This makes it possible to move the closed bunch away from the rollers without opening the band.

Considering the cited references, D'Arrigo is a vegetable bunching machine where a vacuum transfer device moves a band (a wire skirt-type tie is the only type of band disclosed) across the top of a rigid trough. Broccoli is placed on the band and in the trough and is held in

place by a rigid clamp. A cutting device cuts the ends of the broccoli stalks off and a work person manually ties the tie. The tied bunch of broccoli stalks is then released.

The D'Arrigo patent is not analogous to the present invention and does not disclose the present invention. D'Arrigo does not have a band that is "tensioned between" movable fingers. The "band" (wire tie) lies in a cradle and is not held or tensioned by either the cradle or the clamping member. In addition, D'Arrigo does not disclose mechanical fingers that wrap the band around the stems. Accordingly, the D'Arrigo reference should be withdrawn.

A number of the patents cited disclose devices for automatically placing an elastic band on the ends of a bunch of broccoli or the like. These devices all have the same feature that mechanical fingers stretch a rubber band to an enlarged position over a hole, and the broccoli or the like is placed endwise in the hole, and the fingers are then released. These patents include Burns, Parry, et al., Wynn, et al., Crabb, Jr., and Lewis. These patents do not relate to the present invention and specifically do not show a moving finger and tension belt receiving mechanism that receives plant stems laterally from a discharge side of a supply mechanism or feed rollers. As claimed, the present invention requires a flexible band maintained under tension between two movable fingers. The band and movable fingers constitute a receiving mechanism that receives plant stems from a supply mechanism, both of which are components of a machine. To the extent that the machines for expanding and slipping a rubber band over the ends of broccoli stalks is argued to be pertinent, the claims have been amended to specifically recite that these plant stems are fed laterally into the receiving mechanism, which clearly distinguishes the endwise insertion devices of the cited references. Accordingly, these references should be withdrawn

Fantz, et al. discloses a method and apparatus for wrapping a sheet of material around a bouquet of flowers and does not show or suggest a machine for bunching plant stems that are fed from a supply mechanism by a moving finger and tension belt receiving mechanism. The Fantz, et al. disclosure is not analogous and not pertinent to the present invention.

Givin discloses a grocery packaging apparatus that does not appear to be pertinent to the present invention.

Peterson, et al. discloses a mechanical buncher for leafy vegetables and appears to use a plurality of rigid "pockets" 72 in which the vegetables are placed. The present invention uses a flexible belt and an entirely different holding device.

In considering the claims, it is important that the purpose and function of the machine be taken into consideration. The present machine is designed to gently bunch plant stems, such as flower stems and the like. Therefore, the stems are not held in rigid clamping devices, but are instead held in a flexible band. The band is not necessarily an elastic band. The band shown is instead a spring mounted band that is maintained under a certain amount of tension. The band enlarges as additional stems are added to the bunch, and then the fingers close to hold the bunch until the bunch can be tied together.

In addition to the broader claims of the present application, a number of dependent claims cover features that are clearly not shown in any of the references of record. Claim 6, for example, recites that the gripper and rollers are movable relative to each other, so that the gripper can be moved away from the rollers after the bunch has been completed, so that the bunch can be tied together and removed from the apparatus without interference with or the danger presented by the adjacent rollers. This feature is not shown in any reference.

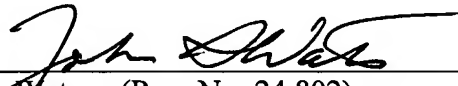
A number of other previously allowed claims (which have been subsequently disallowed) cover other patentable features that are not shown in any of the references of record. These have been discussed previously. They include the lip mechanism of claims 3 and 14 (which is shown in FIG. 4) which is not shown in any reference of record. The lip mechanism protects the plant stems from damaging engagement with the rollers after they have passed through the rollers. This feature was previously allowed, and no art showing this feature has been cited in support of the withdrawal of the prior allowance.

Other features covered by the claims that are not shown or suggested in the references of record include the second pair of gripping fingers and flexible band that increases stability, the band upholding device, the gear wheels that provide coordinated gripper arm movement, and the engagement elements 62 and 64 that automatically cause the fingers to open when they approach the supply rollers and close when they move away from the supply rollers. One or more of these features is in most of the dependent claims and provides an independent basis for the allowance of these claims.

In view of the foregoing, it is urged that all of the claims of the present application are in condition for allowance, and such action is respectfully requested. If there are any further matters to be taken care of, Applicant would welcome an opportunity for a telephone interview with the Examiner to resolve any outstanding matters.

Respectfully submitted,

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